Recd Febr 26th
Ans March 24

New York Feb 20th 1862

Dear Sir

Your favor of Jany 30th was duly received. I was so engaged at the time with some instruments promised to a certain date, that I could not well answer at once as I must now acknowledge and ask your indulgence —

In regard to the choice of Syphon or Cistern Barometer for Mountain Measurements — I would say that much depends on the circumstances attending the Exploration, who carries the Bar. &c The Syphon is much the lightest and readily set for use. It is however, more fragile and cannot be repaired; except by the workmen accustomed to them — On this account they have of late been altogether dropped in favor of the Cistern; and since the Rail Road Expeditions across the Mountains of 1853 the U.S. Topl. Engs have not used them. My present form of Mountain cistern Bar. being used in the California & Oregon work.

I often furnish extra tubes for cistern form, but not enclosed in same case with the Bar. as this makes the case permanently larger, but put in a light box and tied to the side of the Bar. so that when used the box can be left off. this is preferred by those who have most experience here. I can make the case like the french ones — extra tubes should be taken.

My Bar. as I generally keep on hand read to 5000 — 10,000 & 16,000 ft. The instruments reading the lesser number are rather stronger. so it is not desirable to have them of unnecessary low reading

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I make with some a light brass tripod to suspend the barometer the three legs go in pockets at side of case — this is only wanted in places void of trees or means of temporary support —

Bar. $35. Case $5. tripod $5. $40 as put up for the Topl. Engrs.

Green's Syphon $30. Case $5.

The $35 & 25 Smithsonian Bar. are of the same plan, the graduation of the latter reads to 100ths only, and some other points are not so expensively made — tho substantially good — in fact for the 100th reading many prefer it for simplicity and ease in practice. The $35 is the proper one where the cost is of little account.

The Express Comp. will not insure against breakage of glass I insure my Bar. on ordinary transportation routes for 5 per cent — I do not know the freight charge to St Louis —

The instruments can commonly be had in one day notice always in two or three days if the particular one ordered ~~Bar~~ is not on hand.

My present hurry is over now; ~~so~~ if this does not include all you want to know I will write again on hearing from you

Yours truly
To Mr Geo. Engelmann James Green

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Dr. G. Engelmann

To James Green Dr.

To 1	Mountain Barometer in leather case	$40.00
2	Barometer tubes in Box	2.75
2	Thermometers pocket in Metal cases	5.00
2	Iron Bottles for Mercury	4.00
2 1/2	lbs Mercury 80c	2.00
	Leather & Silk for Bar. tubes	25
	Packing	1.25
	Insurance of Bar	2.00
		$57.25

New York April 23d 1862

Dear Sir

I hope before this reaches you you will have received the Barometer &c

The iron bottles are better than any other. I have sent two as they can be better distributed in carriage than a larger on account of the weight

I send some directions with this and hope your friend will find himself able to restore his barometer to usefulness, at least, in case of accident

Yours

Truly

To Dr. Engelmann

James Green

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Rec^d 10^th

New York May 6th 1862

Dear Sir

Your favor with Draft for $57.25/100 is received, being amount of bill rendered.

The tube of Barometer is as large I think as is safe for such a range of elevations. a little care in making the readings will leave the error from adhesion very small.

Yours
Truly
James Green

To Dr. G. Engelmann

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Rec Nov 14
Ans Nov 29

New York Nov 10th 186[illegible]

Dear Sir

I enclose bill for thermometers sent to order of Mr C. C. Parry. The last two I sent by Express as directed to ~~the~~ Genl F. M. Case which I hope he received in good order

Yours
truly
James Green

To Dr Engelmann

P.S. The frames of broken ones have been received

Madison 27 June 1887

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Recd March 11
Ans — 13

New York March 7th/63

Dear Sir

Yesterday I sent by Express your instruments: not however, directed to you, but to Prof. Chauvenet of Washington University St. Louis — !

I have been unfortunate in having a barometer sent to him twice broken, so I have taken the liberty of putting your instruments in company, not to break yours, but that yours may save his: and also to make less the cost of transportation a heavy item when repeated.

I hope there will not objection to dividing the cost in this case —

Will you do me the favor of sending to the University for your part of the instruments. The Maximum thermometer will likely require directions for use as it is on my new plan

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please examine it, and he will send full instructions hereafter.

Yours
truly
To Dr. Engelmann
James Green

P.S. I don't know how far from you the Wash. University may be - if convenient the Prof. can take out his barometer, and the box can be carried or packed to your residence, If this gives you expense or trouble you must put to my account, as I have acted without orders and should regret to increase your part of the attention to the matter.

J.G.

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Missouri Botanical Garden

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New York April 1st 1863

Dear Sir

Your favor with amount of bill is received -
My thanks for your reference to the Ecrman thermometers - I have always some on hand, they are good in many uses -

The Smithsonian wet & dry therm. are not made with a surrounding scale - but with cylindrical bulbs projecting beyond the scale: and held by a bracket for free exposure - they are made in other forms: but that is way I ~~have~~ have always made them for the Institution and so prepared.

Yours
truly
To Dr. G. Engelmann James Green

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Rec'd April 9th
Ans — 9th

Washington April 3d 1862

Dear Sir

Your favor of March 23d has been forwarded to me here — I shall be detained here three or four days more, with some instruments for the Observatory, when I return to N.Y. and will attend to your order at once —

I hope your friend will be able to do good work with the instruments, at any rate I will do my best to have all go right —

Yours
truly
To Geo. Engelmann M.D. James Green

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Recd Febr 6th
Ans same day

New York Feby 3rd – 1864

Dear Sir

Since I wrote to you yesterday I find I have two of the double vernier Barometers nearly completed, they had been put aside to do other work; so I can give you a barometer at three or four days notice –

Yours
truly
James Green

To Dr Engelmann

I have rack motion graded to 20 inches about 10,000 ft
" " slip " " " 16 " " 16,000
" " rack 2 vernier " " " 14 " " 20,000

Recd Febr 6th
Ans same day

Yk Feby 1st – 1864

d. I have no
enough for your
, like many of the
not many; The best
mercury with two verniers
. I am not sure
place, Mr Whitney
and has four mi
to 14,400 feet.
a barometer will
want one immediately
00 ft that might do
have for the upper
, however, by the
hopes is early enough:
know how soon you
about it, as I
. Will you have

Yours
truly
James Green

To Dr G Engelmann

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Recd Febr 6th
Ans same day

New York Feby 1st 1869

Dear Sir

Your favor is received. I have no barometer ready made that has range enough for your purpose except a slip vernier one, like many of the French, some even prefer them, but not many; the best I think, for long range is the arrangement with two verniers so as ~~[illegible]~~ lessen the rack motion. I am not sure if the last I sent you was on this plan, Mr Whitney of California prefers them to all others and has four in use, he has made some measurements to 14,400 feet. so if you find higher points your barometer will come down pretty low. If you want one immediately I could send you one reading to 10,000 ft that might do for the stationary one and the one you have for the upper stations, I will have you one ready, however, by the 1st of March, for certain if wanted, and this perhaps is early enough: I am busy now, so please let me know how soon you you want it, and I will make sure about it, as I suppose long before travelling season. Will you have any extra tubes &c!

Yours truly
James Green

To Dr G Engelmann

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